Safety & Buildings Division
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Approval # 2011102-I
(Replaces 200602-I)
File No.: 20119102

Wisconsin
Building Products Evaluation

Material	Reflective Insulation Board Perka "P2000" Insulation
Manufacturer	Polar Industries, Inc. 32 Grammer Ave PO Box 7075 Prospect, CT 06712

SCOPE OF EVALUATION

GENERAL: This report evaluates the use of Perka P2000 reflective composite insulation board manufactured by Polar Industries, Inc. and its use in a specified roof assembly.

The **IBC** requirements below in accordance with the current **Wisconsin Amended 2009 ICC Codes:**

- **Vapor Barrier:** Perka "P2000" reflective insulation board was evaluated in accordance with the vapor retarder requirements of **s. IBC 1405.3** .
- **Foam Plastic Material:** Perka "P2000" reflective insulation board was evaluated in accordance with the fire safety requirements of **ss. IBC 2603.1, 2603.2, 2603.3, 2603.4** and **2603.5.6.**

The **IECC** requirements below in accordance with the current **Wisconsin Amended 2009 ICC Codes:**

- **Thermal Performance:** Perka "P2000" reflective insulation board was evaluated in accordance with the thermal performance requirements of **s. SPS 63.303** for heating season purposes. **Note:** See TESTS and LIMITATIONS OF APPROVAL sections.

DESCRIPTION AND USE

Perka "P2000" is a composite insulation board consisting of Type 1 molded/expanded rigid polystyrene (EPS) faced on one or both sides with reflective or white polyvinyl finish.

TESTS AND RESULTS

Testing on the Perka "P2000" as a composite insulation board was done in accordance with the following standards:

- ASTM C203-99, Standard Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation
- ASTM D2842-01, Standard Test Method for Water Absorption of Rigid Cellular Plastics
- ASTM D1621-00, Standard Test Method for Compressive Properties of Rigid Cellular Plastics
- ASTM D2126-94, Standard Test Method for Response of Rigid Cellular Plastic to Thermal and Humid Aging
- ASTM E96, Standard Test Method for Water Vapor Permeance
- *ASTM C518-04, Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus. Note: Though this test is referenced in the report, the actual test was

conducted under the CAN/ULC-S701-01, Standard for Thermal Insulation, Polystyrene, Boards and Pipe Covering test procedures.

- ASTM D2863, Standard Test Method for Measuring the Minimum Oxygen Concentration to Support Candle-Like Combustion of Plastics (Oxygen Index)
- ASTM C236-89, Standard Test Method for Steady-State Thermal Performance of Building Assemblies by Means of a Guarded Hot Box. **Note:** See LIMITATIONS OF APPROVAL section.

LIMITATIONS OF APPROVAL

The **IBC** limitations below are in accordance with the current **Wisconsin Amended ICC Code:**

- **Vapor Barrier:** Perka "P2000" is a composite insulation board is approved for use as vapor retarder and air barrier.
- **Foam Plastic Material:** Perka "P2000" reflective insulation board shall be separated from the building interior with a thermal barrier as required by **s. IBC 2603.4.**
- **Thermal Performance:** Perka "P2000" reflective insulation board shall be installed as allowed by s. SPS 63.303. with a default **R-value of 5 per inch of insulation**.

Failure to have ALL assemblies defined in this approval negates the R-values referenced in this approval, as well as the approval itself.

This approval will be valid through December 31, 2016, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Approval Date: April 12, 2012 By: _____

Tom Kasper
Section Chief
Integrated Services Bureau